

**Reading Hospital School of Health Sciences
Medical Imaging Program**

MI 132 – Imaging Principles and Equipment
Transformer Law Math Problems Worksheet #2
2022-2023

1. A transformer is constructed with 350 turns on the primary and 1,000 turns on the secondary. If the input voltage is 220 volts, what is the output voltage?
2. What is the current induced on the secondary side of a transformer when the primary side is delivered with 5 A and has 2,000 turns and the secondary side has 10,000 turns?
3. There are 20 turns on the primary side of a transformer and 15,000 turns on the secondary side. If 220 V AC is supplied to the primary winding, what is the voltage induced in the secondary winding?
4. There are 300 turns on the primary side and 175 on the secondary side. How much current would have to be delivered to the primary side of a transformer to result in an induced current of 20 A?
5. The secondary coil of a transformer has 20,000 turns; the primary coil has 400 turns. If 120 V is supplied to the primary coil, what will be the resulting voltage in the secondary coil?
6. The secondary coil of a transformer has 15,000 turns; the primary coil has 500 turns. If 0.6 A is fed into the primary coil, what is the resulting secondary amperage?